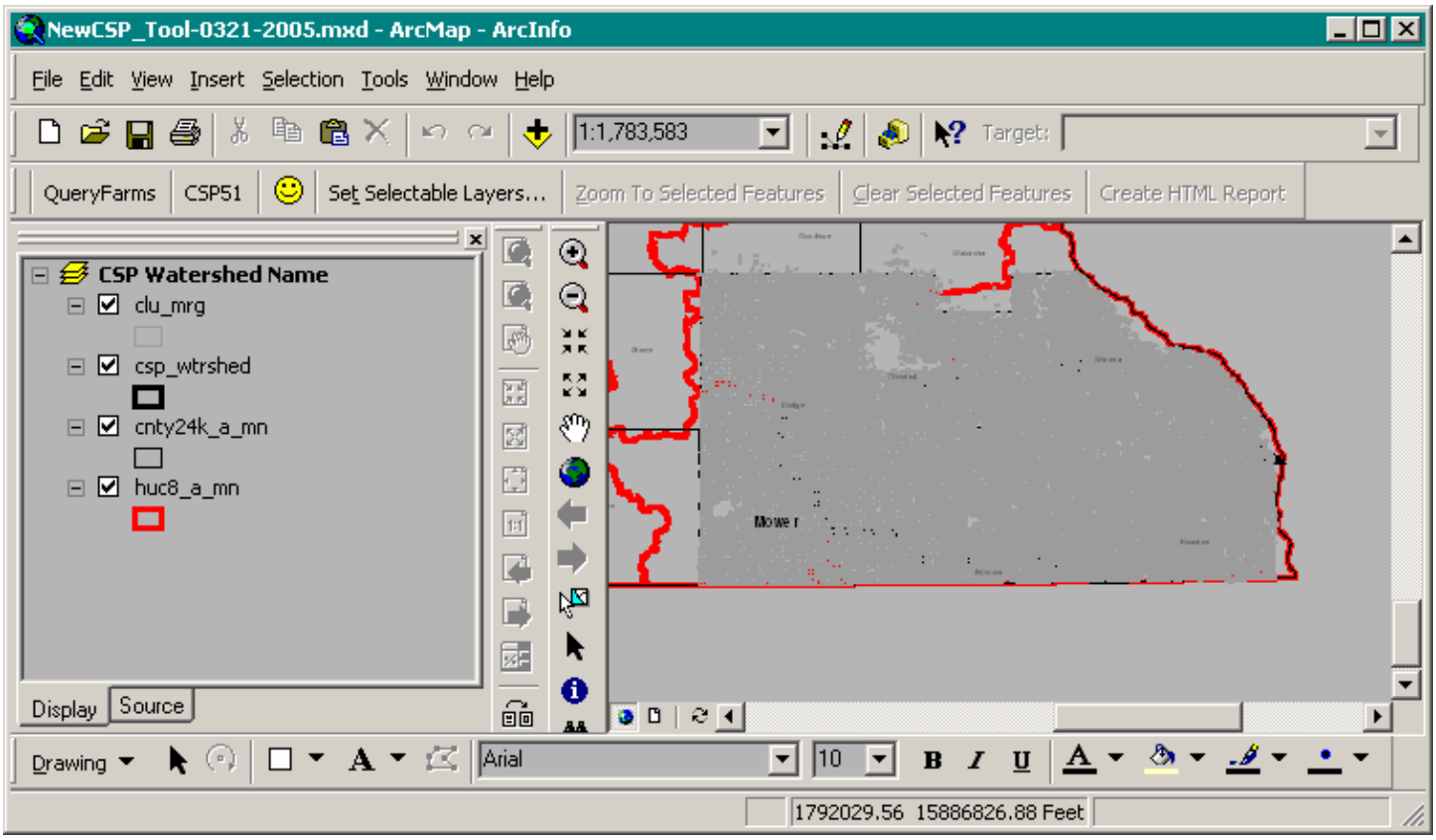
CSP 2005 TOOL

The CSP tool is hard-coded, but can be run from either the **C:\home\CSP** or **f:\projects\nrcs\csp** folders. Under the c:\home folder, users **must** create a CSP folder, and under that folder create another folder called Exports. The Area GIS Specialists may have this process set up for you if they provide you an .exe (executable) file.

The CSP Tool was developed to determine 51% eligibility. The data layers MUST be in the order shown in the diagram, below, for the tools to work correctly; the clu dataset must have "clu" in the shapefile name and the CSP watershed dataset must have "shed" in the shapefile name. This tool does not work in Toolkit.

To begin, Click the Start Button, All Programs, ArcGIS, and then Select ArcMap. Open the **CSP51_Template.mxd**. You may see additional shapefiles, depending on how your Area GIS Specialist set up your template. The CLU layer must be 1st, and the CSP watershed must be 2nd.



The data layers should include at a minimum:

- clu_mrg = contains the CLU boundaries for all the counties intersecting the CSP watershed
- csp_wtrshed = your CSP watershed boundary file
- watersheds = statewide HUC8 watersheds in Minnesota
- Counties = Minnesota's county boundaries and labels

MAY NO LONGER BE NECESSARY TO DO:

PREPROCESSING:

ArcCatalog – preprocessing – creating an Attribute Index and Spatial Index speeds up the background processes in ArcMap.

Do this by opening ArcCatalog and navigate to your CLU dataset.

Right-click on the dataset (clu_mrg.shp)

Click on Properties

Click on Index

Click on FARMNBR

Click Apply.

Then click on COUNTYCD

Click Apply.

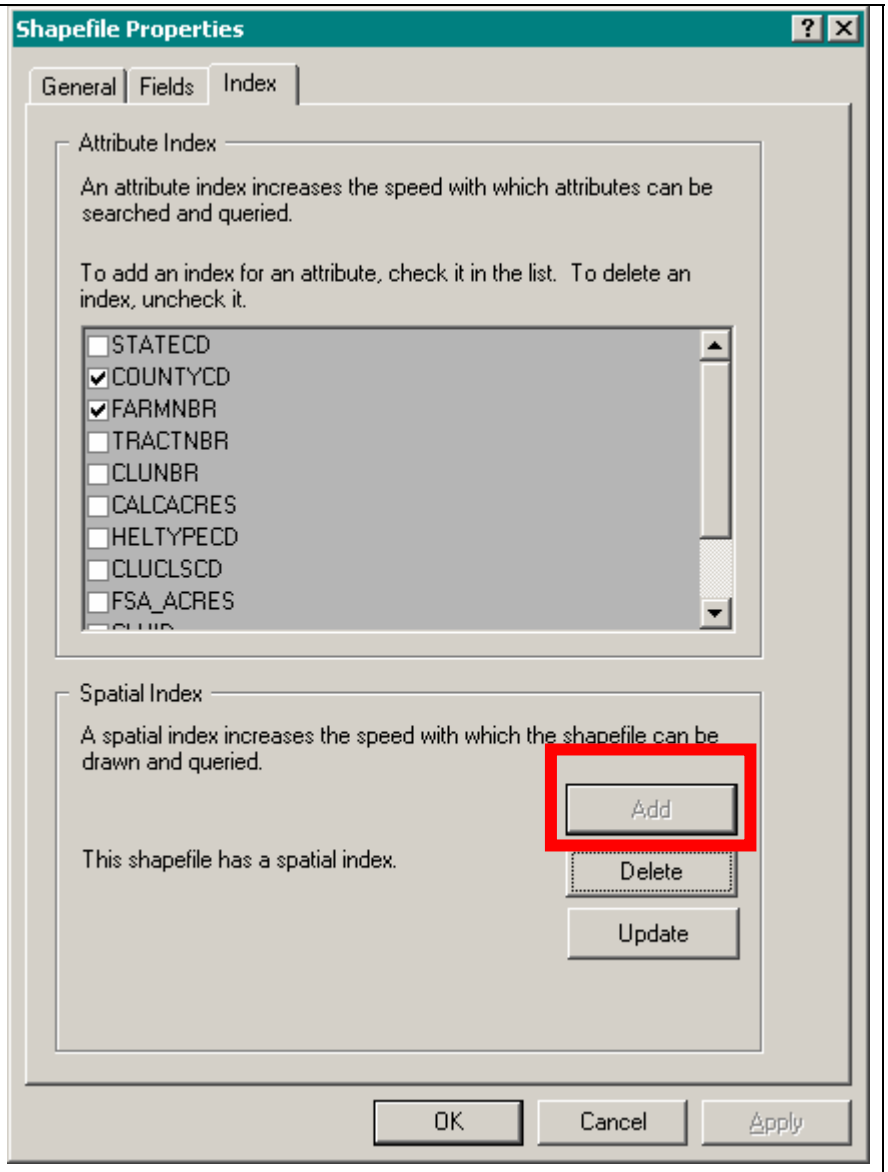
Then Click on ADD button to add spatial

Click on Apply.

The final result will look like diagram at right.

You'll notice if you look at the file directory using Windows Explorer, that this process created 3 new Index files:

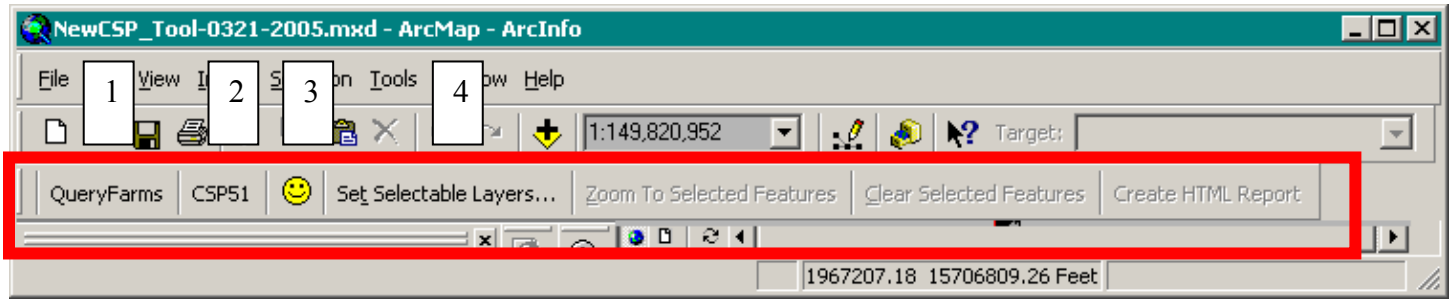
Clu_mrg.Farmnbr.atx (attribute index)
Clu_mrg.sbn (these 2 are the spatial
Clu_mrg.sbx index)



I have found this process to be very quirky!! Sometimes it went very quickly, others times the computer just hung and I had to bail out. I found that if I clicked and ran each index separately (3 processes), it went smoother.

Before We Begin - A Look At The Tool

An explanation of the buttons to be used in your CSP analysis follows below. More information will be provided later as to how and when to use these buttons (although sequence is pretty much left to right).



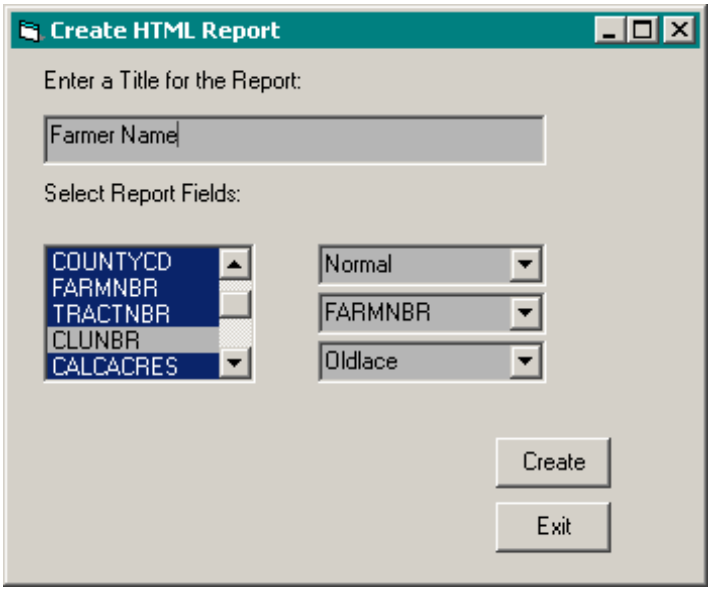
1. **Query Farms** = where you will query out the different farm numbers requested by the Farmer to define his ag operation. The completed query (more info below) will export the results to a new shapefile.

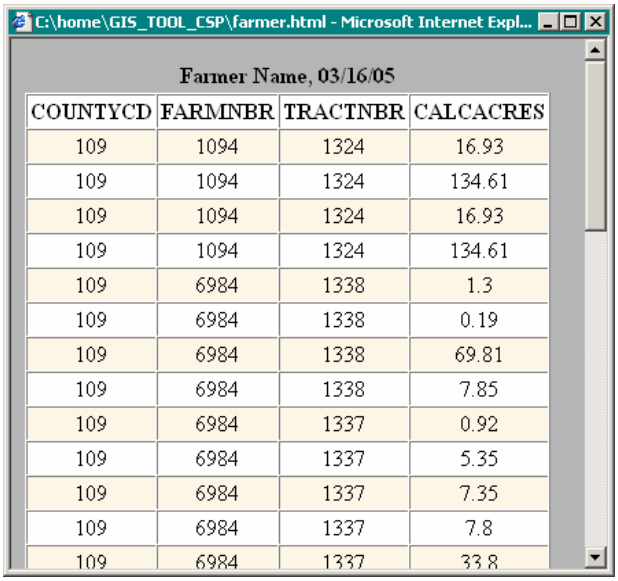
2. **CSP51** = click on this tool and a dialog box will pop up telling you what percentage of the clipped acreages is compared to the total ag operation acreage. If it is the greater amount, the farmer can begin signup for CSP.

3. **HappyFace** = separates the necessary buttons from some buttons you may need and are available to use. If you click on it, it will say "Hello…" Give it a try – a whimsical approach for some humor!

4. **Set Selectable Layers** = allows you to choose which layers you can select the features for. This may be helpful for further analysis after you've determined whether the farmer meets the CSP majority requirement.

    - **Zoom to Selected Features** = zooms the display close-in to your selected features
    - **Clear Selected Features** = clears all the selected features of all layers (the blue outlines)
    - **Create HTML Report** = this will create a html file showing all of the records that have been selected. You must click on the specific layer you want to generate the report for. Follow the diagram below if you wish to use it. You can then print the html and place a copy in the farmer's folder. (.dll needs to be loaded) **THIS TOOL MAY NOT BE NEEDED.**

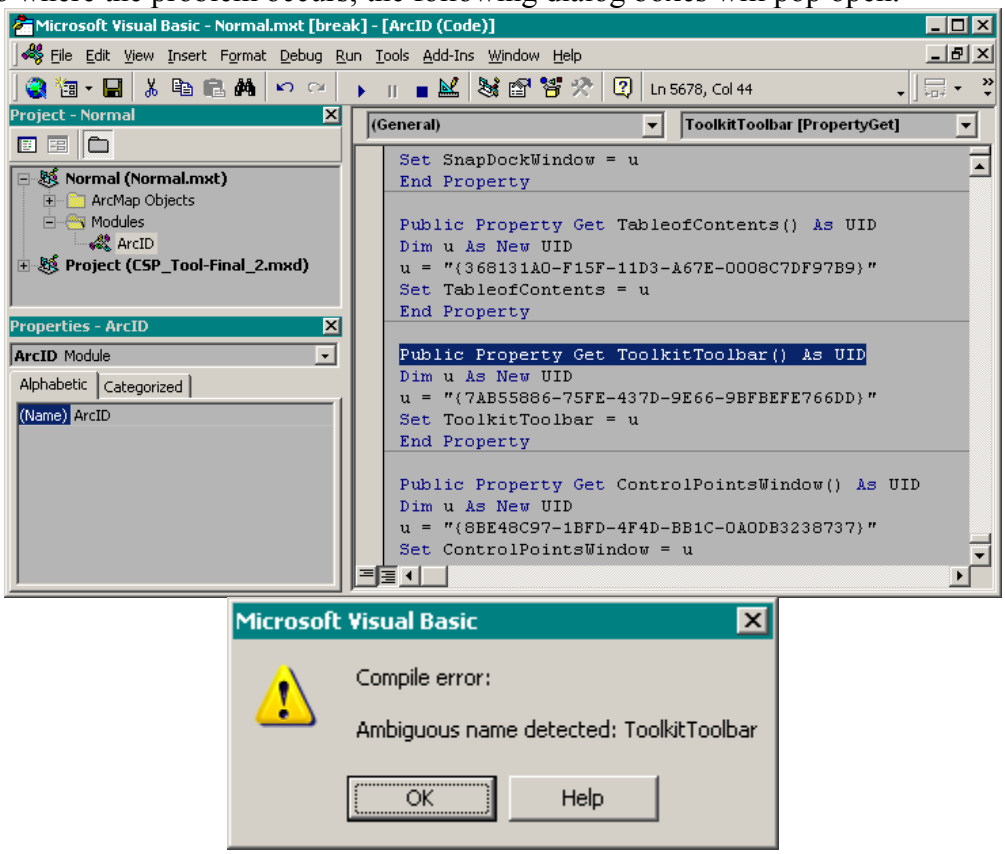




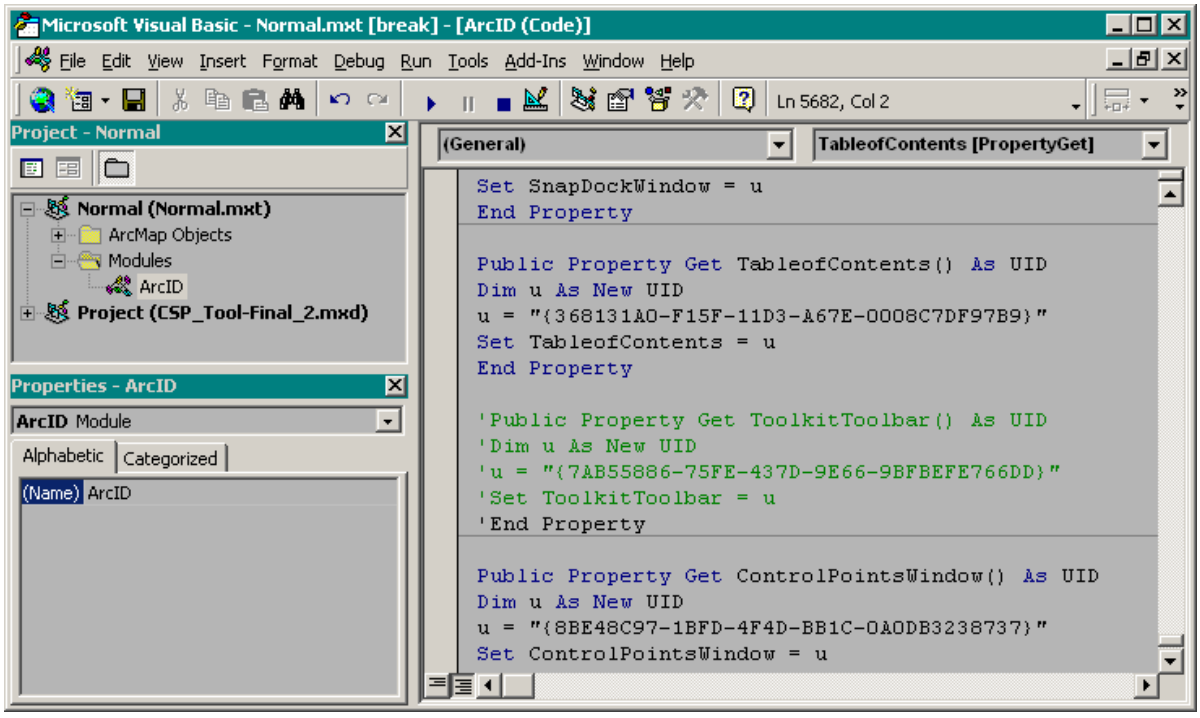
COUNTYCD	FARMNBR	TRACTNBR	CALCACRES
109	1094	1324	16.93
109	1094	1324	134.61
109	1094	1324	16.93
109	1094	1324	134.61
109	6984	1338	1.3
109	6984	1338	0.19
109	6984	1338	69.81
109	6984	1338	7.85
109	6984	1337	0.92
109	6984	1337	5.35
109	6984	1337	7.35
109	6984	1337	7.8
109	6984	1337	33.8

Potential Error

The first time the tool is used, it may find a conflict from Toolkit. If this happens, Visual Basic Editor will open and be zoomed to where the problem occurs; the following dialog boxes will pop open.



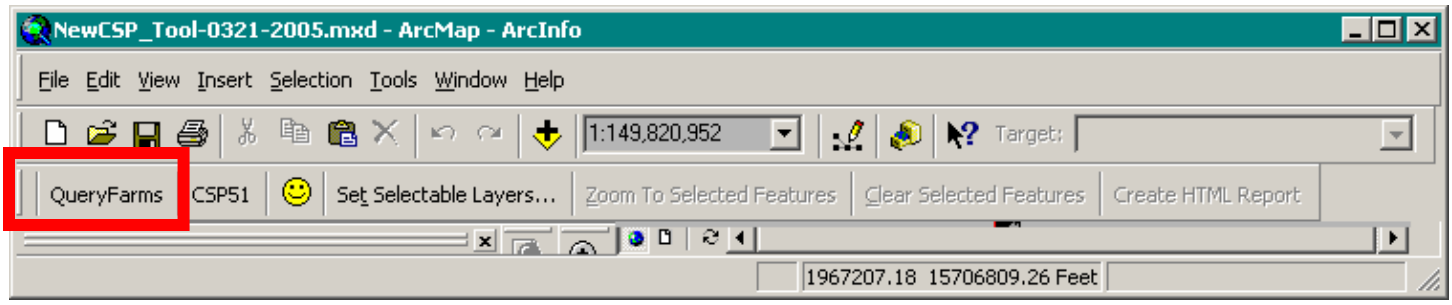
There are about 5 lines of code that need to be remarked out. To do this, put your cursor at the beginning of each line and type in a single quote (‘). If you have further questions, please contact your Area GIS Specialist or the State GIS Coordinator**. To fix the problem, just put a single quote in front of the 5 lines of text as shown below:**



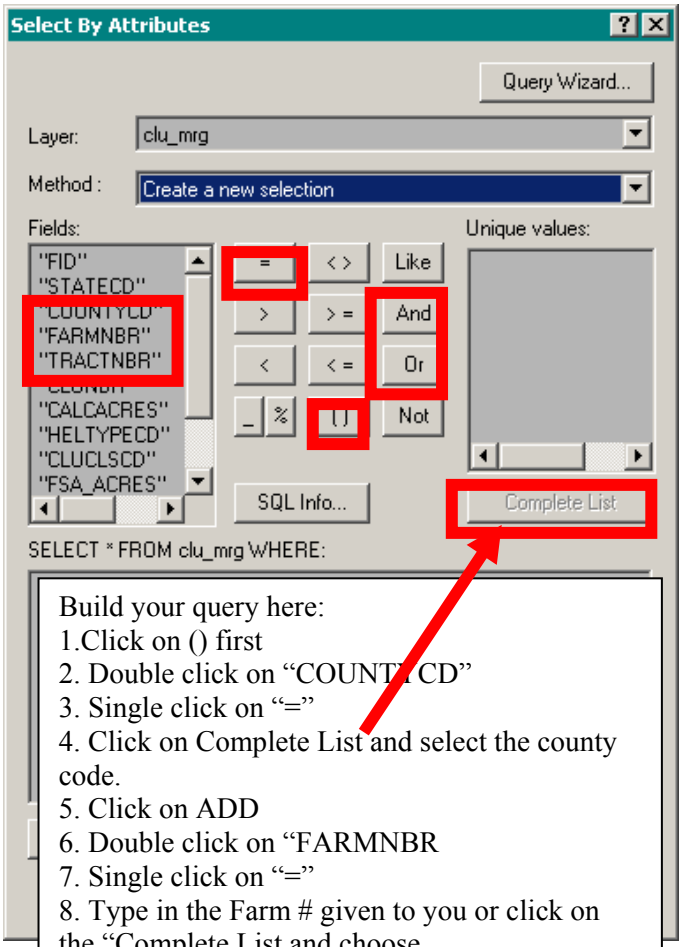
The CSP tool should work fine now.

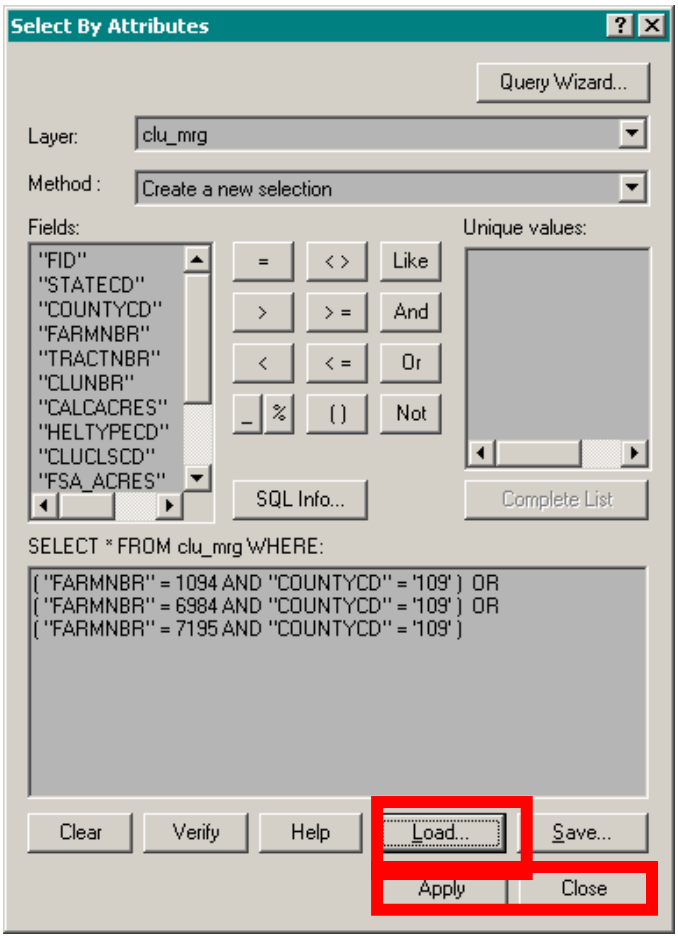
Step-By-Step Process

Step 1. Click on QueryFarms button.



The dialog box below left will pop open. Follow the guidelines shown in the diagram. The right diagram shows an example of a completed query. It is important to use "( )" for each **countycd** and **farmnbr** or **tractnbr** combination. Otherwise you may select 2 farm numbers with identical values in 2 different counties.



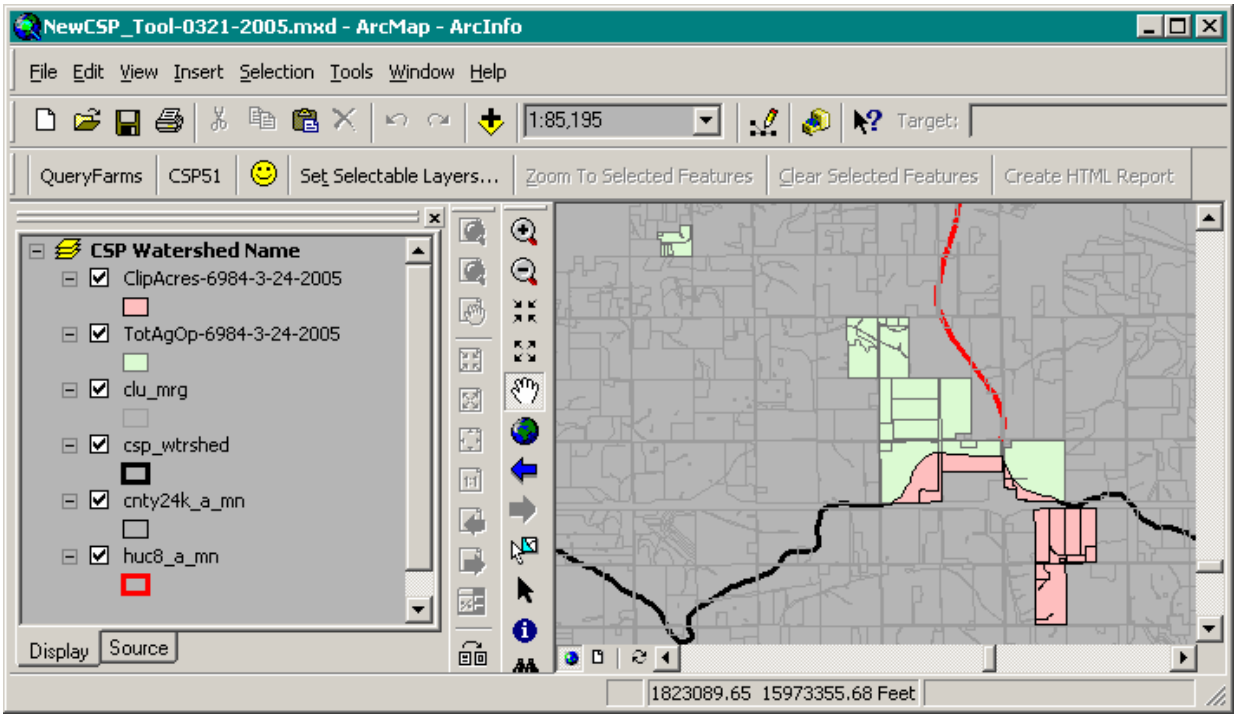


To finish the process, click on **Apply**, wait for the hourglass to stop, and then **Close.**

NOTE: Your GIS Specialists may have created a specialized "Expression" for your use. If so, just Click on the Load… button above and navigate to the **c:\home\csp** folder for **expression.exp.** Once the expression is loaded, you can tweak the county and farm numbers as needed.

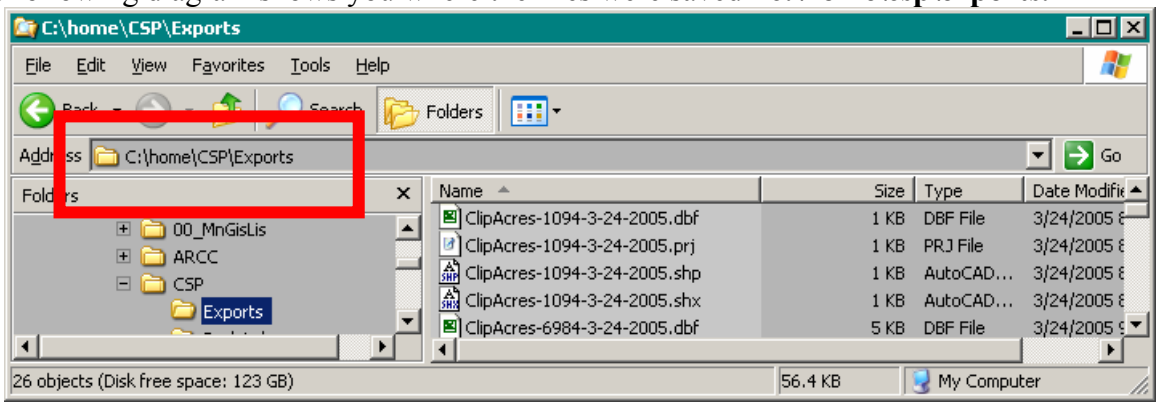
Once you click **CLOSE**, 2 shapefiles are created and added to your project. The first shapefile defines the farmer's total ag operation and is created and exported to the **c:\home\csp\exports** folder and called "**TotAgOp-xxxx-mm-dd-yyyy**" (xxxx stands for one of the farmer numbers in your query, and the mm-dd-yyyy is the month, day, year).

The 2nd second generated is a new clipped shapefile. It also exported to the **c:\home\csp\exports** folder and called "**ClipAcres-xxxx-mm-dd-yyyy**." This shows the land contained inside the CSP watershed. An example is shown below.

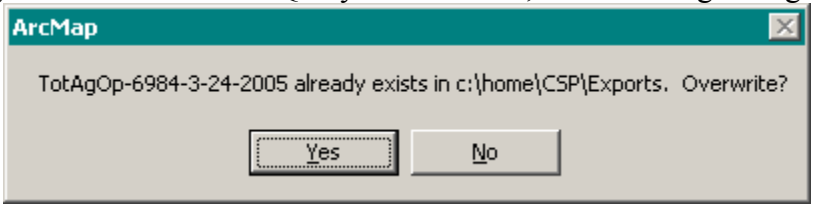


To summarize, the second shapefile above, "TotAgOp…" contains all of the polygons that define the total ag operation. The first, "Clipacres…" is the result from the clip of the total ag operation shapefile to the CSP watershed shapefile. The 2 shapefiles were automatically added to your project and the total acres calculated and stored.

The following diagram shows you where the files were saved **- c:\home\csp\exports.**



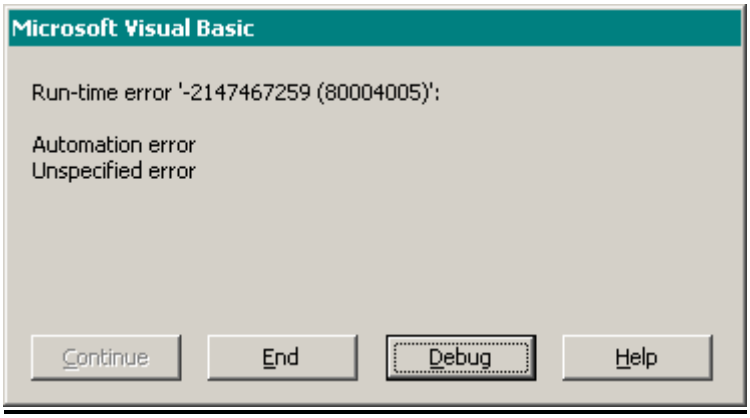
<u>Please Note</u> - if you were to rerun the QueryFarms button, the following dialog box will pop up:



If you get this, just click **<u>YES</u>** and the previous file will be overwritten. <u>HOWEVER, if you wish to save the previous query, you must move it from the **c:\home\csp\exports** folder into the Customer Folder.</u>

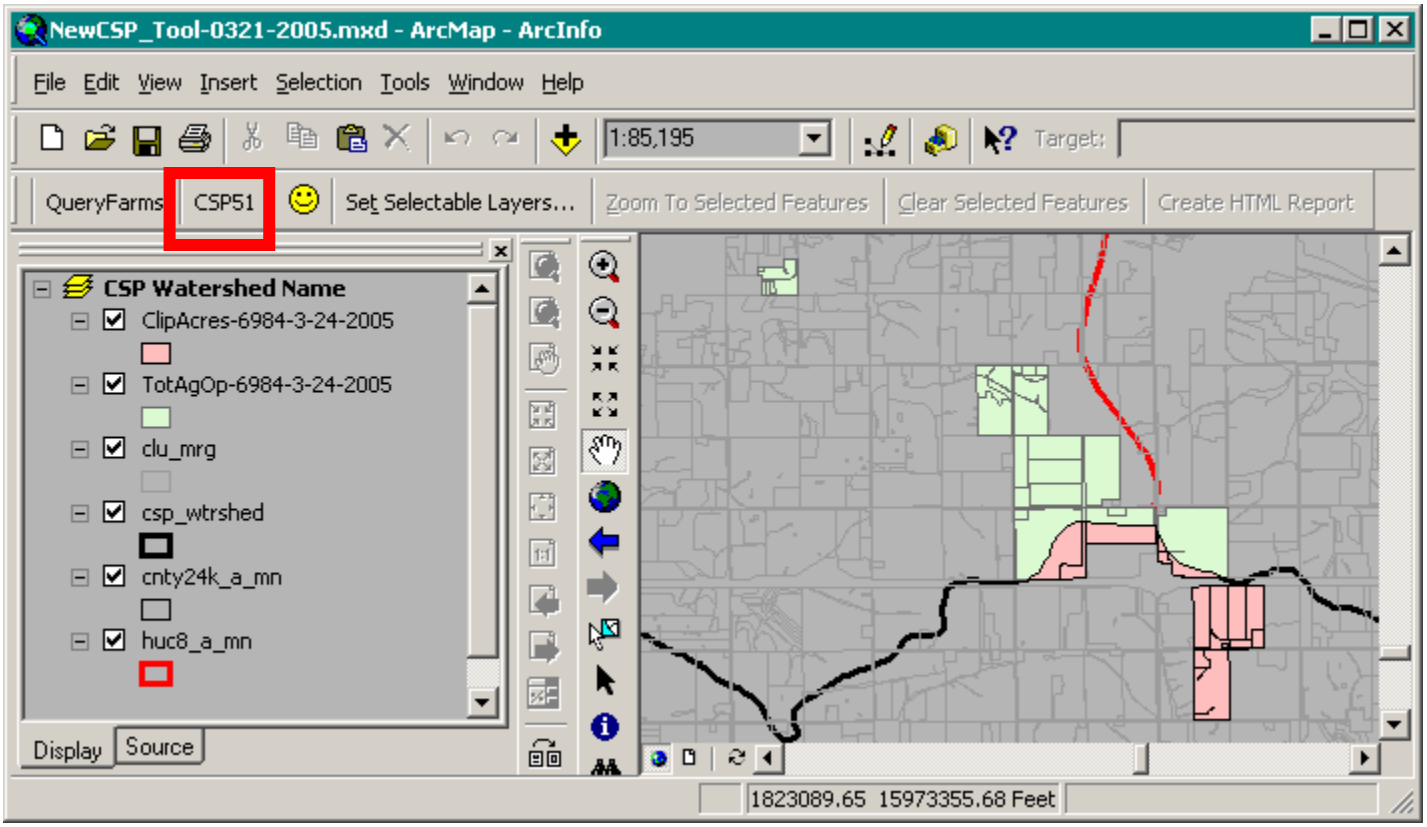
NOTE: **If you want to save the original shapefiles from your Query, you must also move them to your Customer Folder (or another folder of your choice).** If you do not move the shapefiles and you need to re-run the **QueryFarms** button, your previous file will be overwritten – especially if you use any of the same farm numbers as in your initial Query

IF AT ANY TIME, YOU GET THE FOLLOWING DIALOG BOX

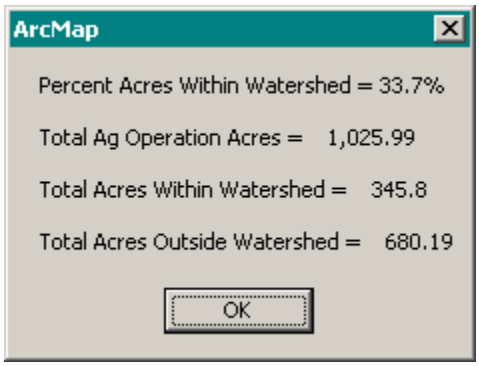


JUST CLICK "END" AND CONTINUE

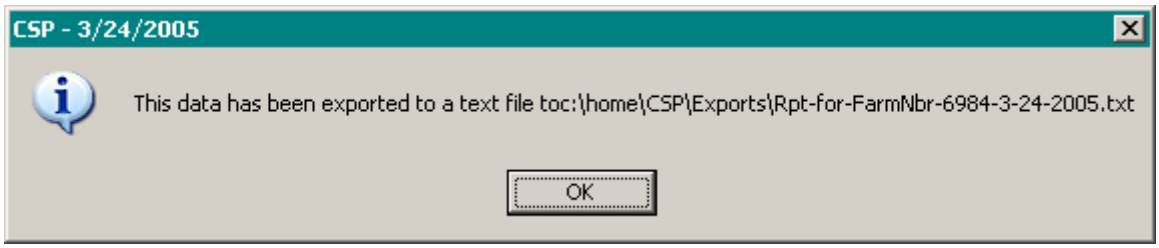
Step 5. Calculate the CSP51 tool. Click on the **CSP51** button. This tool calculates the acreages for the Total Ag Operation, and the total acreages that are contained within the watershed.



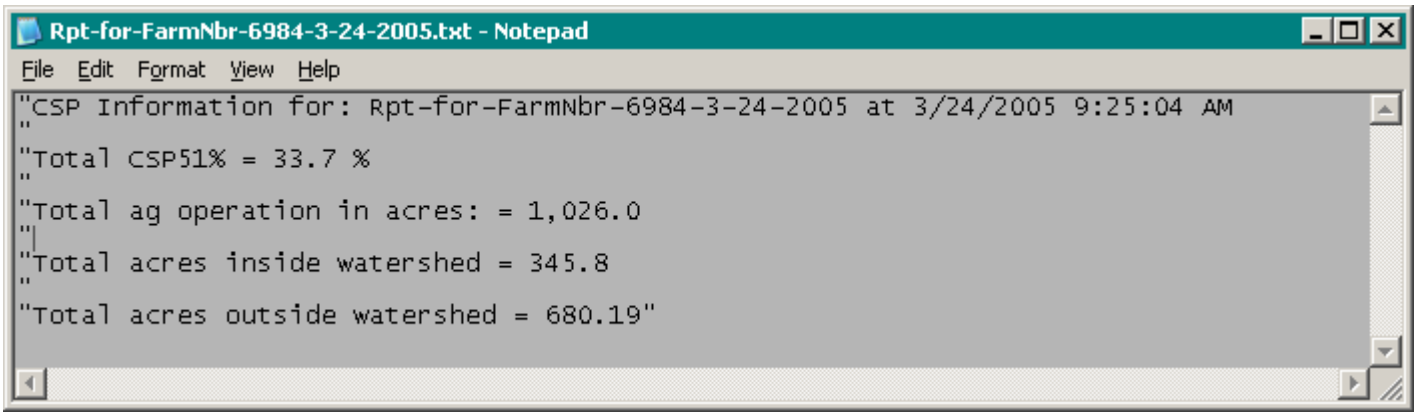
The following 2 dialog boxes will then pop up providing you with the final information you will need to determine whether the farmer's acreage within the CSP watershed is the greater majority of his total ag operation. You can click on the OK key, or just hit the Enter key on your keyboard.



The information shown in the dialog box above is then exported to a textfile which you can print out and place in the farmer's folder:



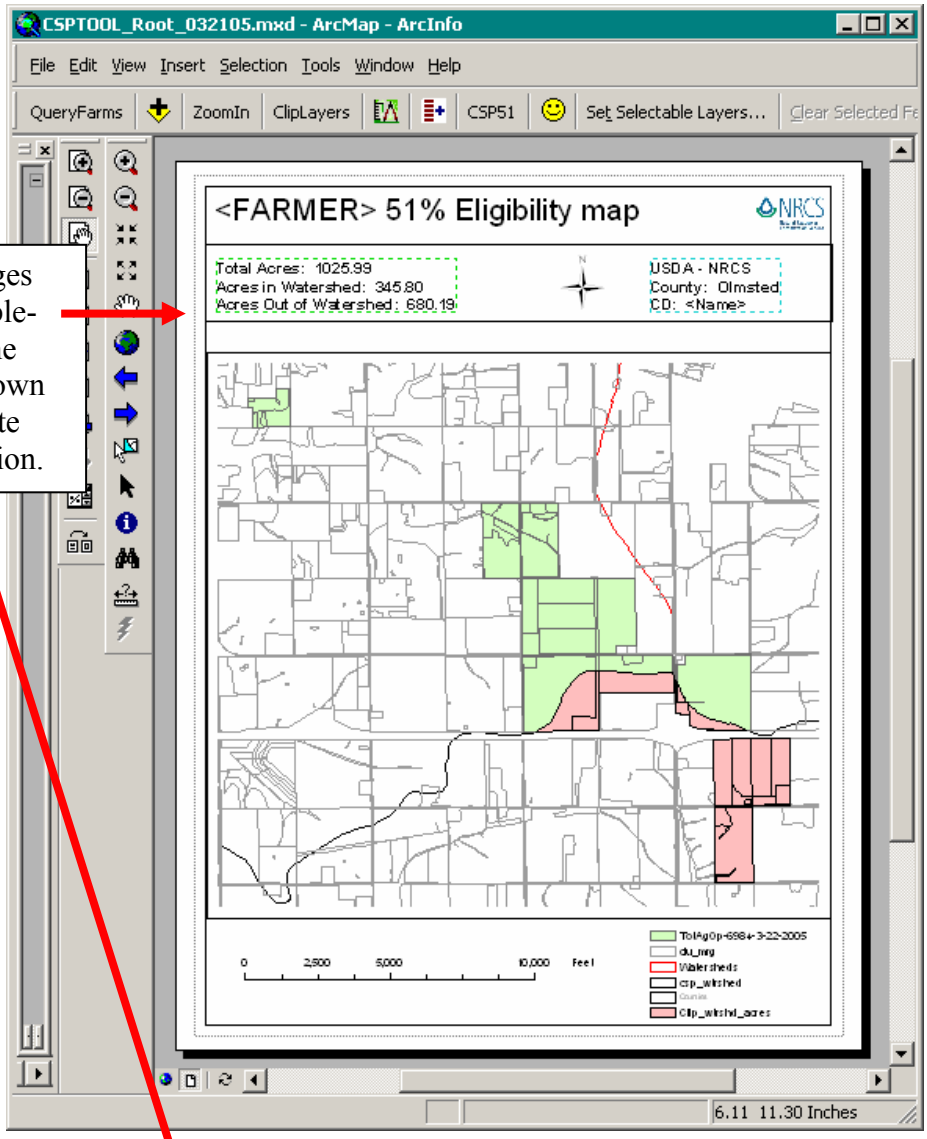
The text file will look like the following when opened in Notepad:



Map Layout

Finally, you can create output maps showing the results of your analysis. It has been suggested that 2 maps may be needed. The first will show the farmer's total ag operation, and the second will show the clipped acres within the watershed. You will need to toggle on and off each of the new shapefiles created for printing.

A map template has been provided for your use, but will require some tweaking. Examples are provided on the next page.



Input total acreages here by just double-clicking inside the dashed boxes shown here. Then update the text information.